

CLAIMS

1. A method of depositing a wear coating (2) on the surface of an article (1) comprising the steps of
 - depositing at least a first layer (3) of the coating (2) on the surface of the article (1), the first layer (3) comprising a certain amount of chromium carbides dispersed in a cobalt matrix and
 - depositing at least a second layer (4) of the coating (2) on top of the first layer (3), the second layer (4) comprising an amount of chromium carbides dispersed in a cobalt matrix which is higher than the amount of chromium carbides in the first layer (3).
2. The method of depositing a coating (2) according to claim 1, comprising after the step of depositing at least a first layer (3) of the coating (2) on the surface of the article (1), the first layer (3) comprising a certain amount of chromium carbides dispersed in a cobalt matrix further the step of
 - depositing a plurality of successive layers (3, 4), each layer has an increased amount of carbide content, with highest carbide content being in the top layer (4).
3. The method of depositing a coating (2) according to claim 1 or 2, comprising the step of applying a coating (2) with a overall thickness of up to 400 μm , with a preferred thickness in a range of 50 to 250 μm .
4. The method of depositing a coating (2) according to claim 1 to 3, wherein the layers (3, 4) of the coating (2) are applied by an electroplated method.
5. The method of depositing a coating (2) according to claim 1 to 4, comprising further the step of heat-treating the applied coating (2) is in vacuum at temperatures in the range from 800 to 1060°C for time in the range half an hour to 100 hours.

6. A seal system between two articles (1) wherein at least one article (1) is coated with a wear protective coating (2), the coating (2) comprises
 - at least a first layer (3) on the surface of the article (1), the first layer (3) comprising a certain amount of chromium carbides dispersed in a cobalt matrix and
 - at least a second layer (4) of the coating (2) on top of the first layer (3), the second layer (4) comprising an amount of chromium carbides dispersed in a cobalt matrix which is higher than the amount of chromium carbides in the first layer (3).
7. The seal system according to claim 6, wherein the coating (2) is provided as a seal between gas turbine components.
8. The seal system according to claim 6 or 7, wherein the coating (2) is applied to mating surfaces of two articles (1) or gas turbine components.
9. The seal system according to any of the claims 6 to 8, wherein the total thickness of the coating (2) constituting layers (3, 4) is up to 400 μm , with a preferred range from 50 to 250 μm .
10. The seal system according to any of the claim 6 to 9, wherein the thickness of the upper layer (4) is 25 to 75% of the total thickness of the coating (2).
11. The seal system according to any of the claim 6 to 9, wherein the volume fraction of chromium carbide of the upper layer (4) is in the range of 30 to 50%.
12. The seal system according to any of the claim 6 to 9, wherein the volume fraction of chromium carbide in the bottom layer (3) is in the range 20 to 30%.

13. The seal system according to any of the claim 6 to 12, wherein the seal system is built up of multiple layers, each layer has an increasing amount of carbide content, with highest carbide content being in the top layer.